



architecture

- 2 “L-shaped” superimposed plans create a 3-sided courtyard that faces west
- a double height atrium joins the two wings and faces west toward the courtyard
- one wing houses classrooms, the atrium, dining facilities, and other student activity areas
- the other wing houses the law library, faculty offices and the chapel

lighting

- lighting system is almost entirely 277V fluorescent lighting
- most spaces utilize occupancy sensors to allow for automatic shutoff
- rooms with a large amount of glazing have photocells to reduce energy use when ample natural light is available
- faculty offices, the library, classrooms and other select spaces are controlled with a time clock to ensure energy is not wasted during off hours

electrical

- service connected to villanova university’s 13.2kV underground primary distribution system with a 15kV primary loop switch
- a 1500 kVA, 13.2 kV to 480/277 volt, 3 phase, 4-wire, pad mounted x-fmr located outside
- emergency power provided by a 150 kW, 480/277V, 3ph, 4w, deisel generator (13 hrs)



the people

owner: villanova university
 general contractor: gilbane
 cm: smithgroup
 architect: smithgroup
 mep: smithgroup
 landscape architect: ml baird & co
 civil engineer: yerkes associates inc
 structural engineer: o’donnell & naccarato inc

the statistics

size: 170,000 sf
 levels: 3 above grade/1.5 below grade
 construction begins: November 2, 2007
 owner occupancy: August 20, 2009
 project delivery method: GMP
 cost: \$56.5M estimated total construction cost



mechanical

- 1 300-ton water-cooled, centrifugal chiller and 1 300-ton two-stage direct fired two-stage absorption chiller located in lower level main mechanical room system with a 15kV primary loop switch
- 1 primary, constant volume, end-suction chilled water pump for each chiller
- 2 secondary chilled water pumps will distribute water at 42 deg F to cooling coils throughout building
- heat will be provided using campus central steam plant

structural

foundations: columns will bear on spread footings
 columns: wide flange w/ a typical size of W12x72
 ground floor: the ground floor will be SOG
 floor framing: composite structural steel wide flange beams and girders supporting light weight concrete on metal deck
 floor framing: w-beams and girders supporting wide rib metal deck